PTHA Tutorial information

Workshop on Mapping Uncertain Hazard Information

This SageMathCloud project contains files that will be used during the workshop.

There's not much here yet, but more will be added.

For some general tips on using SageMathCloud, open the file SageMathCloud.md.pdf

See the file Jupyter.md.pdf in this directory for more hints on using Jupyter notebooks.

Before opening notebooks...

Open a terminal (from the `New` or `+` tab at the top, click on `terminal`) and in the terminal enter the command

```
cp -r Notebooks MyNotebooks
```

Work with the notebooks in the new directory `MyNotebooks`, not with the originals in `Notebooks`. This will minimize problems if we need to push new versions of a notebook to your project.

Jupyter notebook Hazard_Maps.ipynb

Start by reading through this notebook, which explains some basic ideas used in probabilistic mapping.

To open this notebook, click the `Files` tab at the top of the webpage and then navigate back to the home directory and then to `MyNotebooks/Hazard_Maps.ipynb`. Click on this to open the notebook. It will take a few seconds to load and start running.

The first thing to do when you open the notebook is to select `Run all` from the `Cell` menu at the top of the notebook. This will execute all cells in the notebook and may take a few seconds. Once it's down, you should see the figures it produces and also use the slider bars that appear above some of the figures to sweep through different plots.

Jupyter notebook Hazard_Curves.ipynb

To open this notebook, click the `Files` tab at the top of the webpage and then navigate back to the home directory and then to `MyNotebooks/Hazard_Curves.ipynb`. Click on this to open the notebook.

Again you should `Run all` to execute the cells so that the slider bars work.

This notebook contains a couple quizzes so you can check your understanding.

For each quiz, you should be able to replace `"?"` by your answer in the code cell, and hit `Shift-Enter` to see if you are correct.

You can also try changing values in other code cells and re-execute to create new versions of some of the plots.

Note that what's computed in each cell will depend on what's been executed previously, and the order in which the cells were executed. Executing a cell simply runs the commands contained in that cell in an IPython kernal running in the background.

Make_Hazard_Curves_and_Maps.ipynb

The notebook `MyNotebooks/Make_Hazard_Curves_and_Maps.ipynb` illustrates how to create hazard curves and maps, using some sample data for a small portion of Crescent City, CA.